CANSA
CLIMATE ACTION NETWORK
South Asia

STATE OF CLIMATE ACTION IN NEPAL, 2023: SECOND CITIZEN ASSESSMENT

July 2023

STATE OF CLIMATE ACTION IN NEPAL 2023: SECOND CITIZEN ASSESSMENT

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Climate Action Network South Asia-Nepal

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Acronyms

CSA	Climate Smart Agriculture
CSO	Civil Society Organization
EV	Electric Vehicle
FAO	Food and Agriculture Organization
GHG	Greenhouse Gas
GoN	Government of Nepal
ICS	Improved Cookstove
INDC	Intended Nationally Determined Contribution
LAPA	Local Adaptation Plan for Action
LDV	Light Duty Vehicle
MoFE	Ministry of Forest and Environment
NAP	National Adaptation Plan
NAPA	National Adaptation Program of Action
NDC	Nationally Determined Contribution
PAPA	Provincial Adaptation Program of Action
PM	Particulate Matter
SALT	Sloping Agricultural Land Technology
UN	United Nations
UNFCCC	United Nation Framework Convention on Climate Change

Foreword

This report, entitled "State of Climate Action in Nepal-2023: Second Assessment" brought endeavors, and accomplishments mainly from the civil society perspective with key way forward in addressing this critical climate issue in Nepal. Building on the previous “State of Climate Action in Nepal” report published in 2018, CANSA-Nepal continues its publication on the issues of climate change in every five years. This report serves as a comprehensive assessment of our progress in mitigating greenhouse gas emissions, adaptation efforts, policy provision and state of implementation, promoting sustainable climate smart practices, gaps and needs. Our assessment shows that, there is a dire need to increase climate finance at local and provincial level, limited risk transfer mechanisms are developed for those suffered from climate induced loss and damage. We have witnessed that several plans and policies are developed and endorsed at different level, however their implementation is very poor.

While recognizing the remarkable strides we have made in recent years, this report also emphasizes the need for greater ambition and accelerated climate action. It serves as a clarion call to policymakers and citizens alike, underscoring that climate action is not merely an option but an imperative for our survival and prosperity by integrating climate considerations into development planning, fostering climate-resilient infrastructure, promoting efficient renewable energy systems, advocating sustainable agriculture and forestry practices, and enhancing climate change education and awareness. Further, it has been reiterated for securing the loss and damage finance mechanisms for climate induced disaster victims, localization of climate adaptation initiatives and phasing down plan of fossil fuel with a clear roadmap and timeline.

Our enthusiasm has grown after witnessing the commitments and supports of various stakeholders in Nepal, particularly from the concerned government institutions, civil society organizations, research and academic institutions, and local communities. Their collective efforts, ranging from formulating climate policies to implementing community-based adaptation projects, constitute critical steps toward building a climate resilient, sustainable as well as risk informed development in Nepal.

However, it is essential to acknowledge that there is still much work to be done. This report presents a range of actions as ways forward for strengthening our climate action efforts, such as enhancing climate data collection and analysis, fostering greater collaboration, scaling up the deployment of renewable energy sources, increase efforts for climate change adaptation and resilience and integrating climate change considerations into disaster risk reduction strategies. Implementing these recommendations will demand unwavering commitment, collaboration, and resource mobilization from all stakeholders. It is my fervent hope that this report serves as a catalyst for meaningful dialogue, inspiring policymakers, practitioners, and citizens to redouble their efforts and embrace innovative solutions. Together, we can forge a sustainable future for Nepal, one that strikes a harmonious balance between economic development, environmental preservation, and social equity.

I extend my heartfelt gratitude to all those who have contributed to the development of this report, including researchers, experts, government officials, and representatives from civil society organizations. Your invaluable expertise, insights, and unwavering passion have greatly enriched this document and will undoubtedly shape the trajectory of climate action in Nepal.

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Chairperson, Nepal Water Conservation Foundation (NWCF)

Executive Summary

Nepal is susceptible to multitudes of hazards and risk is further intensified by the impact of climate change. Over 80% of annual disaster induced losses of lives and properties are attributed to the extreme weather conditions. There is a growing consensus on the fact that the changing patterns of extreme weathers is the result of human interference in the climate system, as confirmed by the latest IPCC AR6 report[1], The report presents a grim scenario indicating hostile nature of climate with more frequent, disastrous, and in unexpected forms. With the differential annual maximum average temperature rise the country, Nepal is experiencing the impacts of climate change at an alarming rate both slow onset impact as well as the rapid onset impacts of climate change. The slow onset impacts of climate change was introduced in the Cancun Agreement (COP16), refer to the risks and impacts associated with: increasing temperatures; desertification; loss of biodiversity; land and forest degradation; glacial retreat and related impacts; ocean acidification; sea level rise; and salinization. Nepal experiencing an uncertain precipitation pattern both at temporal and spatial scales and rising extreme isolated nature of precipitation events leading to heavy flash flood, inundation and flooding in the last 10 years. These extreme events have significant impacts on mountainous, rural, and rapidly urbanizing areas, exposing communities to multiple and compounding risks associated with hostile climate and weather conditions with slow and rapid onset leading to recurring loss and damage.

Majority of responses to the urgently prioritized climate change issues have been either inaction or grossly inadequate. A situation paradox exists when in one side new scientific knowledge and technologies are growing to understand or address the emerging risks of climate change on the people and society. On the other hand, cases of malpractices are also growing in various forms. These demands making civic voices stronger with evidence not only from the physical science perspectives but also from social science perspective. As highlighted by the *Climate Change and Human Choice*[2] a conscious civic voice in favor of saving humanity is not only instrument for bringing up uncomfortable knowledge in the contemporary climate discourses but also for demystifying the myths and fake narratives that keep arising from various quarters in the society. The aegis of this consciousness is being carried by some civic organizations under the CANSA Charter, and, this second assessment is founded on the backdrop of its first assessment published in 2018 entitled *State of Climate Action in Nepal: Annual Snapshot*[3]. This is expected to serve as the live working document to keep updating periodically.

The current understanding of climate change risks in Nepal is limited to hazard interactions, focusing on the domino effect, where one hazard triggers another. This creates a cascade of interactions amongst and between hazards that increase the probability of additional hazards occurring leading to mega disasters. For instance, the Melamchi flood disaster of 2021 demonstrated a hard case of an extreme weather event that triggered a series of hazards, including landslides, floods, and the massive loss of critical infrastructures including the newly constructed headwork systems of the country's largest water supply project to ease water shortage of the capital city, Kathmandu. Similar cases of disasters as impacts of the post-monsoon cloudbursts like the situation of 2021 which brought heavy flooding in Mahakali, Karnali and Babai rivers of western Nepal including number of other flash flooding. Nepal experienced an unexpected strong tornado in Bara district which resulted in huge loss of lives and properties. This is another example of extreme climate events occurred

1 https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf
2 Ten suggestions for policy makers: Guidelines from international social science assessment of climate change and human choice. https://www.researchgate.net/publication/235360890_Ten_suggestions_for_policymakers#fullTextFileContent
3 http://www.cansouthasia.net/wp-content/uploads/N-CANSA-State-of-Climate-Action-in-Nepal-FINAL-7-October-2018.pdf?fbclid=IwAR0IOLO0TREa5UjbdMLsBnUyTRyeaRfP-iDMW-bI2-tFyddYbj5KstNKOCI

in Nepal. These climate extreme events highlight the importance of ex-ant actions, preparedness, mitigation and adaptation which include, but not limited to the introduction of technological innovation in climate action, institutionalization of end-to-end multi-hazards early warning system, and strong institutional readiness to minimize the climate induced loss and damages in Nepal.

The members of the civic climate action networks are witnessing the ground reality of how these changing risks affect communities and their lives. The impacts include more frequent and intense disasters such as pluvial and fluvial floods including glacial lake outburst floods (GLOFs), landslides, debris flow, windstorms, heatwaves, and fires. These events result in accelerated health risks, water and food insecurity, loss of productive land and safe housing, and long-term displacement. Without having larger investments in climate actions, the biophysical and socio-economic impacts of these climate risks are impossible to reduce loss of lives and damage of properties, means of livelihoods, access to health services, income, and most importantly, the hope and confidence of the people. The significant economic cost of climate change, which is ever growing, is the additional losses of GDP. Soon, the humanitarian costs of climate-related disasters and emergencies are expected to outstrip the available resources to invest in response and recovery. This demands huge investments to build resilient human infrastructures, early warning and preparation to reduce the post disaster investments.

Impacts of climate change in agricultural sector have threatened food and water security. Temperature rise, changing characteristics of rainfall, decrease of soil organic matter and the loss of agrobiodiversity threaten crop productivity and the livelihoods of small-scale farmers. Promoting a climate-resilient system, a holistic approach combined with research and development together with community centric, climate advisory services are crucial elements to minimize the impacts of climate change in different sectors. Similarly, the impacts of climate change hit hard in water resources across the country. Despite abundant water resources, Nepal faces challenges in accessing safe, clean, and adequate water due to degrading spring sources resulting from the impacts of climate change.

Nepal’s transport sector depends on imported petroleum fuel with an exception of 1% on electricity. This sector alone accounts approximately 26% of the total GHG emission. Therefore, this is a critical area where policy course corrections are required to switch from fossil fuel to renewable energy-based transport system. A shift towards renewable energy based public as well as private transportation systems is required to reduce the level of emission from the transportation sector which support Nepal’s road to make net-zero by 2045. In this, we argue to introduce electric mass transportation vehicles starting from major cities with a time bound plan to reach at least in all municipal level across the country. Likewise, Nepal's energy production and consumption trends are dominated by traditional biomass energy and the import of fossil fuels, leading to rising greenhouse gas emissions. The country's target to achieve net-zero emissions by 2045 requires a holistic approach, high-level commitments, and financial investments.

Civil Society Organizations (CSOs) plays key roles in pushing for new laws, programmes, policies or strategies on climate change, in holding governments to account on their commitments; in identifying the lack of joined-up government responses to climate change; and in ensuring that national policy making does not forget the poor and vulnerable, however, limited CSO participation and representation in decision making process hinder effectiveness in climate action. Collaboration, youth engagement, and amplification of marginalized voices are essential for effective climate

action. In Nepal, CSOs are working directly with the vulnerable communities in climate actions, and investing in implementing climate adaptation activities in different sectors aligning with the national policies and framework. This is helping frontline communities in Nepal adapt to the extremes of climate impacts, however, CSOs role and contribution is not recognized as they have accomplished in climate actions.

Although Nepal is active in international climate change policy dialogues, localized international policy process and framework into the national policy process, it lacks necessary accountability in climate policies mainly in the effective implementation of these policies and framework. In the United Nations Framework Convention on Climate Change (UNFCCC), the negotiations on climate finance had very often aided the party countries to agree on other agendas such as mitigation, adaptation, loss and damage, capacity building, technology transfer and others. The Paris Agreement's goals are to limit the global temperature rise to less than 2° C and possibly down to 1.5° C above preindustrial levels. The agreement also has a goal to support the costs of the transition for developing countries. It has set a floor of US$100bn per year by 2020 for this purpose, and it is anticipated that this will increase over time.

The implementation of climate action prioritized in Nepal's NDC and NAP requires 46 billion USD by 2030. The country needs 4.6 billion USD per year to implement the priority adaptation and mitigation actions. In the last ten fiscal year, the federal government of Nepal is allocating approximately 0.5 billion USD equivalent of the budget as climate budget annually. The budget allocation includes both the domestic revenue and international climate finance received in Nepal. It accounts to only 11% of the country needs (annually) to implement the NDC and NAP.

Nepal's response to the unfolding impacts of climate change has been slow and grossly inadequate given the growing risks on lives and livelihoods and recurring cases of loss and damage. Response process, particularly in policy formulation as well as translating policy into action, however are not satisfactory in comparison to the emerging climate risk. CANSA-Nepal, a common platform for CSOs working on climate change, has been assessing Nepal's progress in addressing climate issues, including policy direction and implementation.

A clear time bound action plan must be developed to ensure the successful execution of commitments, plan into actions including providing adequate climate finance, technology transfer, and capacity-building particularly focusing in climate exposed communities. The verdict given by the Supreme Court of Nepal for introducing a climate change Act, offered an explicit guidance and enforcement from judiciary is a positive step towards promoting accountability in policy execution, this however, yet be materialized despite the verdict given. In conclusion, Nepal's climate action requires transformative approaches, collective actions and collaboration at all levels, with a focus on accountability, sustainable practices, and empowering as well as addressing emerging needs of vulnerable communities. By addressing these challenges, Nepal can build climate resilience for its people and the environment.

Based on review of the contexts and gaps, four categories of action areas have been identified to translate the words into actions. They are i) action gap and accountability, ii) climate finance and technology transfer, iii) research and capacity and, iv) embracing inclusive approach.

Action Gap and Accountability

Localize climate actions: The policy **p**rovisions of 80% of the international climate finance to directly reach to the local level should be effectively implement, monitored and the institutional mechanism should be developed to track the progress made. The enhanced tracking of the climate budget and the climate change financing framework should also be developed for the local government where most of the climate action/implementation takes place.

Effectively Implement Climate Policies, Plans and Actions: Effective implementation of all climate change adaptation and mitigation related legislations, action plans, policies and programs have felt essential in order to achieve the goals and objectives. Addressing the increasing impact of climate change, Nepal requires a larger stakeholder engagement with clear financing commitments and plans. The role of all 3 tiers of government is vital to institutionalize climate change adaptation and mitigation in Nepal. Institutional strengthening in particular for local governments should be the immediate priority for the government.

Uphold public accountability on climate action: In response to the needs of climate action, numerous initiatives in the form of policy, plans, projects and strategies have been implemented over the years. However, their effectiveness, efficiency and appropriateness haven't been either monitored and evaluated or made publicly available. Specifically, addressing the gaps in three areas of climate actions are essentials to enhance accountability. They include widening gaps in adaptation needs and actions, mitigation targets and progress, and tracking of loss and damages. Some basic questions to ask includes: Did the specific adaptation actions undertaken in the past fulfill the targets? What were the lessons learned? Who is accountable for the unfulfilled commitments? Why were there no public audits of the actions or the reports not made public? Similar questions applied to the mitigative actions as well. Lack of a systematic mechanism to track the cases of loss and damages and associated risks is the major issue of concern.

Climate Finance and Technology Transfer

Establish Dedicated Tracking Mechanism for Climate Finance: There is no mechanism to track climate finance in Nepal received from different sources. Several studies conducted by PRC showed that approximately 4.33 billion USD of climate finance is being supported from bilateral agencies, multilateral development banks and climate funds between 2013 and 2020 to implement adaptation and mitigation actions in Nepal. This account to only 9.41% compares the Nepal's need to implement the NDC and NAP.

Increase climate finance: There is dire need to increase climate finance at local and provincial level for the effective implementation of existing climate policies, strategies, and action plans. As per the climate policy of Nepal 2019, 80% of the climate budget should go to the local level, however due to the lack of tracking system, accountability mechanism and knowledge on climate action, the policy provision is yet to be fully materialized.

Link disaster finance with risk transfer mechanism: This is extremely important to address climate induced loss and damage based on national and international financial mechanism comes in different names and forms. The financial mechanism that is set up at international level should be mobilized to the risk exposed populations in a convenient way and means. The mechanism can be set up in

the form of a parametric insurance system, or disaster risk finance mechanism, which compensates frontline people and communities for climate induced losses and damages.

Localization of Adaptation technologies: Climate adaptation technologies should be localized, built on local knowledge systems and local needs. These include community centric end to end early warning system, community centric flood resilience mechanism e.g. Flood Resilience measurement for communities (FRMC), and Climate Resilience Measurement for Communities (CRMC), climate field school, and, citizen science approach in disaster risk reduction.

Research and capacity

Set up institutional memory of climate data and information: Lack of institutional memory of climate data and information in the public institutions has been a critical issue to maintain accountability and integrity of the climate action. Government and CSOs should address the issue with a systematic approach and priority as a key action to strengthen national capacity.

Awareness, Capacity Building and Social Mobilization: In addition to the policy and financial framework, social mobilization, awareness raising, capacity building of the government, political representatives and community is required for the effective mainstreaming and integration of climate change in the development process.

Strengthen Research, Data and Information Management: Nepal has conducted limited scientific research and limited systemic storage of long-term consistence climate data (date on temperature, precipitation, and river discharge). There is a need for increasing investment in these efforts, enabling current established institutions and strengthening academia for scientific research.

Embracing inclusive approach

Make the climate action more inclusive in terms of Gender and Social Inclusion, Disability and Youth Participation: All climate actions should priorities GEDSI and ensure wider civil society participation. As the impacts of climate change have a differential impact on vulnerable groups, there is a need for wider CSO engagement and consultation to include these issues during the planning and implementation.

Informed and transparent mechanism for climate initiatives: There is a growing need of setting up a permanent mechanism for an informed decision-making process in the public institutions, specifically for adopting and mobilizing climate knowledge and information.

Limitation

This assessment, however, comes with several limitations that need to be addressed in the days ahead. Some prominent sectors such as forest, biodiversity, land use and land cover change, tourism and culture, business and private enterprises couldn't be assessed. Likewise, critical gaps remained in tracking and addressing issues associated with loss and damage and promoting citizen sciences reflecting the deep sufferings of general public that rarely find space in the predominant IPCC-led peer review-based assessment of climate change impacts.

Cause of concern

Situated in the Himalaya, Nepal is among the global hotspot zones[4] of climate change. This is experiencing the impacts of climate change at an alarming rate with an average warming at rate of 0.056-degree Celsius per year, especially pronounced at higher altitudes[5]. The precipitation patterns are also changing temporally and spatially with higher frequency of extreme precipitation events[6]. These changes have both widespread and deep impacts on the mountainous, rural, and rapidly urbanizing areas, exposing communities to multiple and compounding risks associated with climate and weather extremes[7].

Nepal is abundantly blessed with diverse natural beauty, diverse landscape, snow-fed mountains, rich biodiversity & watershed, making it a treasure trove of natural resources. However, the unique geography, characterized by mountains, rivers, and forests, also adds susceptible to the adverse effects of climate change. The impacts of climate change pose a global challenge that necessitates urgent and collective action from government, civil society and development partners. Repercussions of rising temperatures, erratic rainfall patterns, glacial melt, and an increased frequency of extreme weather events are directly impacting the ecosystems, agriculture, water resources, and livelihoods.

The current understanding of climate change risks in Nepal is limited to hazard interactions, focusing on the domino effect, where one hazard triggers another. This creates a cascade of interactions that increase the probability of additional hazards occurring[8]. For instance, the Melamchi disaster in 2021 demonstrated how an extreme weather event triggered a series of hazards, including landslides, floods, and the destruction of critical infrastructure, such as the newly constructed headwork systems of the country's largest water supply project[9]. Other events, such as the Manang and Mustang floods in June 2021, post-monsoon cloudbursts in 2022, and the Bara windstorms in 2019, further highlighted the inadequate understanding and preparedness for these unprecedented weather extremes[10].

According to the Global Climate Risk Index 2021, Nepal has ranked 10th amongst the countries most affected by extreme climate events in between 2000-2019, is witnessing significant impacts of climate change. The country has observed a rise in temperature and changes in rainfall patterns, particularly during the monsoon season. These alterations have adversely affected agricultural productivity and led to an increase in drought occurrences. A study on climate scenarios of Nepal by the Department of Hydrology and Meteorology, 2017 revealed that the country's maximum annual temperature was rising at the rate of 0.056°C per year in the period between 1971 and 2014 as well as number of days with record breaking high temperatures. Warm days, warm nights, and the duration of warm spells have shown a significant upward trend, while cool days have decreased considerably. Additionally, Nepal faces economic challenges due to climate variability and extreme events, resulting in an annual loss of 1.5% to 2% of GDP, projected to rise to 2% to 3% by 2050, according to an economic impact assessment report on Hydropower, Agriculture, and Disaster Risk Reduction[11].

4 Dilley, M., R. S. Chen, U. Deichmann, A. L. Lerner-Lam, M. Arnold, J. Agwe, P. Buys, O. Kjekstad, B. Lyon, and G. Yetman (20 05), Natural Disaster Hotspots: A Global Risk Analysis, The World Bank Hazard Management Unit, Washington, D. C.
5 MoFE/DHM, 2018: Climate Change Scenarios of Nepal.
6 Karki, R., Hassan, S., Schickhoff, U., Scholten, T., and Bohner, J., 2017: Rising precipitation learned and the way forward. Climate 5(1), 4.
7 IPCC, 2021: Climate Change: The Physical Science Basis, the Working Group I contribution to the Sixth Assessment Report.
8 Arias et. al., 2021: Technical summary. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. V. Masson-Delmotte, P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou, Eds., Cambridge University Press, pp. 33-144, doi:10.1017/9781009157896.002.
9 https://www.nepalitimes.com/opinion/who-will-pay-for-climate-disasters
10 https://www.worldbank.org/en/news/feature/2022/03/28/in-nepal-2-major-climate-disasters-in-a-single-year-highlight-the-need-to-build-resilience
11 Ahmed, M., & S. Suphachalasai (2014). Assessing the costs of climate change and adaptation in South Asia. Asian Development Bank. URL: https://www.adb.org/sites/default/files/publication/42811/assessing-costs-climate-change-and-adaptation-southasia.pdf

Although Nepal's greenhouse gas (GHG) emissions are relatively small, accounting for only 0.06% of global emissions, they have more than doubled over the past decade. In the base year of 2000/2001, GHG emissions were recorded at 13,447 GGT CO2 equivalent, which escalated to 8,166.06 GGT in 2011[12]. The continuous rise in fossil fuel imports has contributed to this increase in emissions. The substantial growth in emissions over the past decade, coupled with the escalating import of fossil fuels, reveals significant gaps in Nepal's commitment to emission reduction and its implementation status. From climate change policy to the Nationally Determined Contribution and Nepal's Long Term Strategy for Net-Zero Emission, targets for emission reduction and fossil fuel reduction have been set to achieve net-zero emissions by 2045.

The members of the civic climate action networks are witnessing the ground reality of how these changing risks affect communities. The impacts include more frequent and intense disasters such as floods, glacial lake outburst floods (GLOFs), landslides, windstorms, heatwaves, and fires. These events result in accelerated health risks, water and food insecurity, loss of productive land and safe housing, and long-term displacement. Without external support, the biophysical and socio-economic impacts of these risks are significant, leading to loss of lives, injuries, damage to livelihoods, access to health services, income, and most importantly, the hope and confidence of the people. For instances, the projected future economic cost of climate change is estimated to be between 2 to 3% additional losses of GDP. The growing humanitarian needs due to climate-related disasters and emergencies are expected to outstrip the available resources for response and recovery.

The State of Climate Action Report 2023 focuses on the independent perspective of civic groups involved in climate change issues, specifically those organized under the Climate Action Network South Asia Nepal (CANSA-N) on emerging climate crisis and ways to reduce these climate risks. The report emphasizes the valuable insights provided by these civic groups, which are crucial for guiding and accelerating national climate actions in Nepal. By offering a decisive, transparent, and effective approach, this report aims to ensure that the country's climate initiatives are on the right track.

The primary objective of this report is to evaluate the progress made in implementing the recommendations outlined in the 2018 State of Climate Action in Nepal report as well as national climate policies. Additionally, it aims to examine the coherence between development policies and climate change policies, along with assessing the current status of their implementation.

- To review the climate commitments made by the Government of Nepal in national policies and international climate agreements;
- To analyze the state of mitigation actions in Nepal, including trends in fossil fuel spending and consumption, as well as actions taken in other energy sectors;
- To recommend climate actions that can reduce Nepal's dependence on fossil fuels.

Accordingly, a comprehensive process was followed while developing this report particularly by engaging civic members in reviewing policies, analyzing relevant journal articles, and examining various sources such as op-ed pieces, news articles, and magazines. The valuable insights and recommendations were derived from consultations with civil society organizations (CSOs) and thematic experts. The information gathered from these sources will guide future climate actions in Nepal.

12 MoFE. (2021). Nepal's Third National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). Ministry of Forests and Environment, Government of Nepal. Kathmandu, Nepal.

Climate policy landscape

Overview

Nepal's Initial National Communication Report, 2004 marks as the beginning of Nepal's response to the UNFCCC policy requirement. This follows with Nepal's endorsement of the Kyoto Protocol in 2005 that made the country eligible to receive climate finance under the clean development mechanism (CDM). Publishing of National Adaptation Programme of Action 2010, followed by National Climate Change Policy 2011 and Framework of Local Climate Adaptation Plan 2011 was the next major thrust in the climate policy landscape of Nepal. Accordingly, Nepal adopted Climate Change Budget Code 2013 in the national budget system to track climate finance in the public expenditures. In the year 2015, Nepal endorsed the three global policy documents namely, Paris Climate Agreement, Sustainable Development Goal 2015 and Sendai Framework of Disaster Risk Reduction. In 2016, Nepal submitted the Nationally Determined Contribution as the first response to the Paris Agreement.

Nepal aims to secure domestic and international funding of USD 47.4 billion for implementing the the National Adaptation Process (NAP) in the phased targets of 2025, 2030, and 2050. Accordingly, the financial estimates for the NDCs, LTS, and CCFF are remarkable in the context of growing funding gaps. The Fifteenth Five-Year Plan recognizes climate change as a cross-cutting sector and emphasizes mitigation, adaptation, clean energy, and international finance. Nepal's enhanced NDC commits to building a climate-resilient society with net-zero emissions by 2050, requiring USD 25 billion for conditional mitigation targets. External support is crucial for achieving these goals. Nepal addresses loss and damage caused by climate change by mainstreaming disaster risk reduction and developing adaptive agriculture and health systems. However, dependence on external assistance poses challenges. Nepal's efforts demonstrate its commitment to climate action and resilience.

Action gaps

The National Climate Change Policy 2019 aims to reduce the risk of climate change impacts and build a climate-resilient society for socio-economic prosperity. The major types of gaps in meeting policy targets are illustrated here:

Implementation Gaps: Despite having comprehensive policies and plans, the effective implementation of climate change initiatives remains a challenge. The slow progress in finalizing the NDC implementation plan and Provincial Climate Change Strategy and Action plan after four years of NDC submission exemplifies this gap.

Financing Gaps: Nepal is confronted with a substantial financing gap in implementing climate change policies such as the Nationally Determined Contributions (NDC) and National Adaptation Plan (NAP). This challenge is exacerbated by limited capacity, inadequate preparations, and efforts to access climate finance, especially in meeting the requirements of ambitious conditional climate targets without sufficient preparation.

Integration Gaps: While Nepal has made efforts to mainstream climate change into sectoral policies and plans, further integration is needed. Climate change considerations should be more comprehensively incorporated across sectors, including agriculture, energy, transport, and urban planning, as well as vertically in province and local level as well to ensure a holistic and coordinated approach.

Monitoring and Evaluation Gaps: There is a need for robust monitoring and evaluation mechanisms to assess the effectiveness and impact of climate change policies and initiatives in Nepal. Improved data collection, reporting systems, and evaluation frameworks are essential to track progress, identify gaps, and inform evidence-based decision-making.

Capacity Building Gaps: Strengthening the capacity of relevant stakeholders, including government agencies, civil society organizations, and local communities, is crucial. Enhancing knowledge and skills on climate change adaptation and mitigation measures, technology transfer, and building resilience at the community level are key areas that require attention. Also, capacity building of province and local government is prerequisite to translate the climate change policies in local levels and ensure the safeguarding of local communities from climate impacts.

Gender and Social Inclusion Gaps: Although Nepal recognizes the importance of gender equality and social inclusion in climate change actions, more efforts are needed for meaningful participation. Limited representation and involvement of women and marginalized groups in decision-making processes highlight this gap.

Accountability: Addressing these policy and action gaps requires collaborative efforts. Bridging the gaps necessitates improved implementation strategies, increased financing options, robust monitoring and evaluation systems, better integration of climate change measures at the grassroots level, enhanced capacity-building initiatives, and greater inclusion of women and marginalized groups in decision-making processes.

Climate finance

Overview

Climate Finance is an often term as deal maker or breaker in the climate negotiations. In the United Nations Framework Convention on Climate Change (UNFCCC), the negotiations on climate finance had very often aided the party countries to agree on other agendas such as mitigation, adaptation, loss and damage, capacity building, technology transfer and others. The Paris Agreement's goals are to limit the global temperature rise to less than 2° C and possibly down to 1.5° C above preindustrial levels. The agreement also has a goal to support the costs of the transition for poor countries. It has set a floor of US$100bn per year by 2020 for this purpose, and it is anticipated that this will increase over time. Oxfam International reported that only US Dollar 21 to 24 billion is the real climate finance support despite the developed countries accounted US Dollar 83.3 billion in the same year. At present, the global negotiation is going on to set a new goal on climate finance beyond 2025.

Nepal is one of the recipient countries of the international climate finance. There is no accurate record of how much climate money Nepal's has received. A study conducted by Prakriti Resources Centre (PRC), US Dollar 1.92 billion was committed for 609 climate-related projects between 2013 and 2017 to Nepal. Multilateral Development Banks viz. the World Bank, Asian Development Bank and European Investment Bank are the largest funders followed by the bilateral development agencies like UKAID, USAID and others. The Government of Nepal had submitted Nationally Determined Contribution (NDC) to the UNFCCC with the target to achieve the net-zero emission by 2045. It includes the ambitious targets on hydroelectricity and renewable energy generation, electric vehicles and electric cooking among other targets to achieve by 2030. The estimated cost of implementing the NDC is US Dollar 25 billion.

The National Adaptation Plan (NAP) has identified 64 projects across nine priority sectors for building climate adaptation. US Dollar 45.9 billion is estimated for the implementation of the identified priority adaptation projects by 2050. The government of Nepal plans to contribute US Dollar 1.5 billion and the remaining US Dollar 45.9 billion is expected to generate from the international finance. The medium term (2030) priority adaptation actions require US Dollar 21 billion of financing.

Gaps

The implementation of NDC and NAP priority climate actions requires 46 billion USD by 2030. The country needs 4.6 billion USD per year to implement the priority adaptation and mitigation actions. In the last ten fiscal year, the federal government of Nepal is allocating approximately 0.5 billion USD equivalent of the budget as climate budget annually. The budget allocation includes both the domestic revenue and international climate finance the country received. It accounts to only 11% of the money the country needs annually to implement the NDC and NAP.

There is no mechanism to track climate finance Nepal received from different sources. Several studies conducted by PRC showed that approximately 4.33 billion USD of climate finance is being supported from bilateral agencies, multilateral development banks and climate funds between 2013 and 2020 to implement adaptation and mitigation actions in Nepal. This account to only 9.41% compares the money Nepal's need to implement the NDC and NAP.

The above figures show that Nepal able to meet only 10% of finance that is required. The public financial system is already stretched to generate additional revenue the country requires to address climatic problems. The country is in dire needs of international climate finance to fulfill its commitments on climate change and to protect its citizens from the adverse climatic impacts. Also the international aid agencies have failed to mobilize more finance to Nepal.

In Fiscal Year 2079/80, 34% of the total budget of federal government is tagged as climate relevant budget. This accounts to Nepali Rupees 609.5 billion. Local governments received only 22 % of the climate budget and 69% of the budget is held by the federal government. Only 9% of the budget is with the provincial government. Ironically, Nepal's climate change policy states that at least 80% of the international climate finance need to mobilize to the local level.

More than two-third of climate finance Nepal's received are consumed at the federal level and only one-third is mobilized to sub-national levels. Localization of climate actions requires more resources to flow at the local level.

Just energy transition to achieve net zero emission

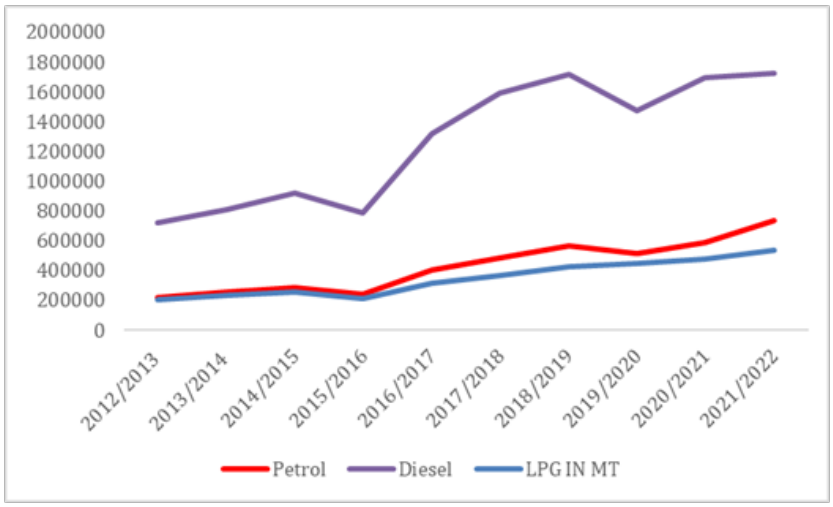
Overview

Nepal's policy for achieving Net Zero emission targets by 2045 is yet to see a clear roadmap in terms of managing energy demand and supply. Globally civic movements are raising their voice that the transition of conventional source of energy to renewable should be tackled taking account of justice to the climate vulnerable communities and low-income economies. The just energy transition implies to the justice mechanism to the different level of energy consumers. Energy sector only one of the several areas covered under the net zero emission target. Solid waste management is another major component discussed here that contributes to the emission.

Nepal's energy energy demand and supply situation indicates the predominant share of biomass, hydropower and fossil fuels. Despite having huge potential in hydro and solar energy, biomass and fossil fuel continues to override the scenario. While going to energy transition, three types of scenarios emerge: i) Biomass to fossil fuel; ii) Biomass to renewable; and, iii) Fossil fuel to renewable (longer pathway). Better going to shorter pathway from biomass to renewable. However, this requires support mechanism to help the consumers' smooth transition. In the Fiscal Year (FY) 2018/19, the energy consumption from fossil fuels accounted for 68.74%, followed by petroleum (18.23%), coal (5.92%), electricity (3.88%), and renewable energy (3.21%)[13].

Traditional fuel energy has been used since ages and it accounts for about 90% of the biomass used for cooking and heating in households. The main source of biomass is the forest. Sustainable wood and fuel-wood resources are the main source of energy supply in Nepal. About 1054.20 million tons of above-ground oven-dried biomass is available for use in Nepal. About 50% of total forest area is reachable and available energy potential is 203 million GJ, whereas community forest contributes 75.89 million GJ of energy[14].

Agri-residue is used as a source of energy especially for heating and cooking. According to Energy Synopsis Report of Nepal, in 2008/9 there was about 234 million GJ of Agri-residue energy, which was 61% of the total energy consumption in Nepal[15] while it was 24 million tons in 2020[16]. There is an increasing trend of imported fossil-based fuel and consumption in Nepal (NOC, 2022). Primary production and import of coal



13 Suman, A. (2021). Role of renewable energy technologies in climate change adaptation and mitigation: A brief review from Nepal. Renewable and Sustainable Energy Reviews, 151(September 2020), 111524. https://doi.org/10.1016/j.rser.2021.111524
14 DFRS, 2015. State of Nepal's Forests. Forest Resource Assessment (FRA) Nepal, Kathmandu, Nepal: Department of Forest Research and Survey.
15 WECS, 2010. Energy Synopsis Report Nepal, Kathmandu: Secretariat, Water and Energy Commission, Ministry of Energy, Government of Nepal.
16 WECS, 2022. Energy Sector Synopsis Report Nepal, Kathmandu: Secretariat, Water and Energy Commission, Ministry of Energy, Government of Nepal

were 14.82 thousand tons and 293.76 thousand tons respectively in Nepal in 2008/9[17] whereas in 2021/22 it accounted for about 10.9 thousand tons and 2 million tons respectively (WECS, 2022). In 2009, total installed and grid capacity for NEA energy was 689.3 MW whereas in 2022 the total availability of grid connected electricity is 2.189 million kW (including NEA and purchased from IPP and isolated small hydro) in Nepal[18].

Nepal's total energy consumption in 2021/22 was 626 PJ (refer to the annex for details) that dominates the biomass use in traditional pattern. However, this is in declining trend. The biomass use declined from 87% (2009) to 66% (2021). In the meantime, commercial energy has increased from 12% (2009) to 31% (2021). Coal and liquid petroleum dominate the consumption of commercial energy sources. Residential sector was the largest energy consuming sector in 2021 but the share has changed from 89% (2009) to 63% (2021). Residential sector relies only on fuelwood (84.87%) and animal waste (4.55%) of 395.7 PJ) of energy used.

Regarding scenario of solid waste production and management, the average municipal solid waste generation stands at 464.61 g/capita/day, with only 400 tons collected daily. Projections indicate that solid waste generation will reach 2.01 billion metric tons in 2018 and a staggering 3.40 billion metric tons by 2050, emphasizing the urgent need for action. Annually, Nepal's municipalities collect approximately 2200 metric tons solid waste CBS (2021) and pile up (49%) in the landfill site, burn (32%) and dump along river side (22%). Efficient and sustainable MSW management poses a critical environmental challenge for developing countries like Nepal, necessitating immediate action to address the growing waste generation and its impacts.

The management of solid waste plays a crucial role in addressing climate change, but there are gaps in policies and implementation that need to be addressed. Inadequate facilities for waste collection, segregation, recycling, and disposal lead to increased emissions and hinder policy implementation. Comprehensive policies should promote waste reduction, recycling, and sustainable waste treatment methods, integrating them with broader climate change mitigation strategies. Strengthening enforcement, monitoring, and penalties for non-compliance is necessary. Public awareness campaigns and community participation are important for fostering a culture of sustainable waste management. Adequate financial resources are needed to implement advanced waste management technologies and infrastructure upgrades.

On a global scale, initiatives such as the Paris Agreement, SDGs, and the NAP process provide frameworks for waste management and climate change adaptation. Countries, including Nepal, include waste management actions in their NDCs to demonstrate commitment. The Loss and Damage Framework addresses the impacts of climate change, including those related to inadequate waste management. Nepal's National Climate Change Policy and reports like the Climate Change Scenario and the Third National Communication Report provide insights and recommendations for improving waste management practices. These policies and initiatives highlight Nepal's commitment to sustainable waste management and climate change mitigation, emphasizing the need for integrated approaches to address waste-related challenges and create a resilient society.

17 DoC, 2010. Foreign Trade Statistics (2008/09). Department of Custom, Tripureshwor, Kathmandu.
18 NEA, 2022. Annual Report 2021/2022, Kathmandu, Nepal: Nepal Electricity Authority

Gaps

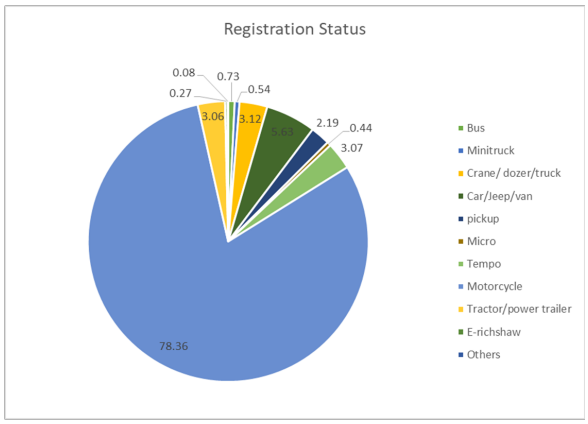
According to the economic survey 2021, energy access has reached to 94% of the total population in Nepal. The generation of clean energy in the future shows the positive trend on reduction of emission and impacts of climate change. Nepal targets to increase present consumption of energy to 700 unit/capita of electricity by 2023 and 1500 unit/capita by 2028, by energy transition from non renewable energy by replacing the energy use from other sectors to renewable one (mainly hydroelectricity). However, studies suggest that the current actions are insufficient to meet the ambition.

To bridge the gap in solid waste management, integrated waste management strategies aligned with climate change mitigation goals offers a way forward. This includes investing in infrastructure, promoting waste reduction and recycling, enforcing regulations effectively, raising public awareness, and providing financial support. A holistic approach that combines technological advancements, policy coherence, public participation, and international collaboration is essential.

Scenario of Transport Sector

Overview

Climate change and air pollution pose urgent challenges globally. Though Nepal is a negligible contributor to global climate change with lower per capita emissions (0.1 percent of total global GHG emissions, 2019), the country's GHG emissions are rising. Most of the emissions are caused by transboundary and natural emissions and about 30% from anthropogenic sources which is again increasing at an annual rate of 2.3%[19]. Among the anthropogenic sources of air pollutant and GHG emission, the unmanaged transport sector relying heavily on fossil based fuels is the major contributor.



According to Water and Energy Commission Secretariat 2022, the transport sector alone in Nepal demands 56.6 PJ of energy i.e. 10.3% of national total. However, emission from transport sector is much higher compared to the energy consumption as the energy need of the sector is met primarily through petroleum products (only less than 1%. through electricity). The vehicle registration status (as of 2018) shows that 78.6 % of the total registered vehicles are motorcycles, 7.4% cars/jeeps/vans, 4.8% tractors and trucks, 1.7% pickups, 1.5% buses, and others remaining[20]. This current trend of preference for private over public transport (3% public vehicles, 14% private vehicles and 78% motorcycle) is unsustainable and will ultimately contribute for higher emissions.

Nepal imported fuel worth NPR 383.92 billion in the last fiscal year, a dramatic increase of 79% from the previous year; eventually increasing the demand for fossil fuel-based energy. As a result, fossil fuel imports constitute 22% of Nepal's total imports – and its value is more than all exports combined.

GoN has been prioritizing the transport sector for several decades in its periodic and annual plans. The transport sector in Nepal depends on vehicle imports. As a result, the import tax plays a significant role in defining the cost of the vehicle in the local market. The tax rate depends on the transport types and their engine capacity (cc). Besides import tax, the GoN also levies import duties. The import tax and duties change from time to time discouraging the adoption of cleaner modes. Recently, 45 percent excise duty has been levied on the import of EVs equipped with motors of 201-300 kW capacity. And 60 percent excise duty has been slapped on EVs with a motor capacity of more than 300 kW[21].

As Nepal has set vision to achieve net zero GHG emission by 2045, transport sector is the major target sector. The NDC actions are aimed at lowering carbon emissions by transitioning to zero-emission transportation for intercity, intra-city and freight travel across public and private modes. Specific actions include: promoting electric mass passenger transportation with transitioning to clean

19 IPCC. (2022). Climate Change 2022, Mitigation of Climate Change Summary for Policymakers (SPM). In Cambridge University Press (Issue 1). Retrieved 11 July, 2023 from https://www.ipcc.ch/report/ar6/wg2

20 DoTM. (2019). Total number of vehicles registered till fiscal year 2018/19. Department of Transport Management (DoTM), Kathmandu.

21 Prasain. K. (2022). Electric vehicle imports see-saw as government policy fluctuates. The Kathmandu Post. Retrieved from; https://kathmandupost.com/money/2022/08/08/electric-vehicle-imports-see-saw-as-government-policy-fluctuates

energy (electricity, fuel cells, and synthetic fuels/biofuels in aviation), electrification in freight transport, and installing and expanding charging stations, establishment and operation of an institutional structure for EV promotion, financing mechanism to support a transition to electric mobility, approval, implementation of the National Electric Mobility Program, implementation of fuel economy standards and labeling system, effectively enforcing in-use vehicle emission testing, and establishment of a Public Transport Authority.

The NDC considers the principle of common but differentiated responsibilities and respective capabilities in light of national circumstances. The NDC also establishes quantifiable activity targets and policy targets in key sectors. The second NDC sets the following targets on key sectors. By 2030, clean energy generation should increase to 15,000 MW, with 5-10 percent coming from mini- and micro-hydropower plants, solar panels, wind, and bioenergy, ensuring 15 percent of total energy demand is met by clean energy sources. In 2025, electric vehicles (e-vehicles) will account for 25 per cent of all private passenger vehicle sales (including two-wheelers) and 20 percent of all four-wheeler's public passenger vehicle sales (excluding electric rickshaws and electric three-wheelers). Increase e-vehicle sales to 90 percent of all private passenger vehicle sales (including two-wheelers) and 60 percent of all four-wheeler public passenger vehicle sales by 2030 (excluding electric-rickshaws and electric three-wheelers). Develop a 200-kilometer electric rail network by 2030 to support public transportation and mass transportation of goods[22].

Gaps

One of the significant action gaps in Nepal's transportation policy is the inadequate development of infrastructure, inadequate and unreliable public transport system and lack of comprehensive approach to integrate alternative modes of transportation, such as cycling and walking, into the existing infrastructure. Infrastructural investment is necessary to encourage the adoption of electric vehicles. The vehicle tax and import duty on electric vehicles play crucial roles in promoting EVs. However, these taxes are subjected to change time and again. There is a lack of research particularly on public transport promotion. As a consequence of the existing trend in the transport in the valley, the vehicle activity of 2003 will triple at the end of the year 2025, if no intervention is made.

22 GoN (2020). Second Nationally Determined Contribution (NDC) of Nepal. Government of Nepal, Kathmandu. December, 2020

Situation of agriculture and food security

Overview

Climate change poses significant challenges to Nepal's agriculture sector which is already under stress due to widening gap of growing demand of food against declining supply capacity from domestic productions. This has made Nepal as the net food importer country for stapple food such as rice, wheat and pulses; fruits, vegetables and oils and spices. This situation is well reflected in the subsequent climate policies including the NAP 2021 and NDC 2021. Growing vulnerability of agriculture sector from multiple hazards has been highlighted, and, a range of reform measures have been recommended to address the growing food insecurity and needs of major response measures to avoid the likely food crisis situations. Rising temperatures, disease, and pests, changing rainfall patterns, loss of agrobiodiversity, and extreme weather events are expected to impact crop productivity and livelihoods. Small-scale farming, reliant on rain-fed and dry land agriculture, is particularly vulnerable to unpredictable rainfall caused by climate change, further affecting productivity[23]. Moreover, climate change results in soil erosion, land degradation, and reduced crop production, particularly affecting the agricultural sector in hill and mountainous areas[24].

In the National Adaptation Plan (NAP) 2021-2050, the nine priority schemes for adaptation of agriculture sector are identified for which the estimated budget is USD 11.2 billion. These schemes aim to enhance agricultural productivity, build resilience in agroecological systems, and transform the agriculture sector. The NAP outlines strategies such as promoting agroforestry research and development, establishing agroforestry-based enterprises, providing technical and financial support to farmers, and creating public awareness about the benefits of agroforestry[25]. Similarly, the GoN has developed the Nationally Determined Contribution (NDC) under the Paris Agreement for 2021-2030. The NDC sets targets to be achieved by 2030, including the establishment of climate-smart villages and farms, promotion of agroforestry and climate-smart agriculture technologies and practices, improved cattle sheds, organic fertilizer production plants, and measures to manage intercropping, agroforestry, conservation tillage, and livestock and agriculture waste[26].

The Ministry of Agriculture and Development (MOAD) has formulated the Agriculture Development Strategy (ADS) 2015, which focuses on biodiversity conservation and climate change adaptation and mitigation. The ADS supports the Local Adaptation Plan for Action (LAPA), scaling up interventions on soil conservation, watershed management, and adoption of Sloping Agriculture Land Technology (SALT) that promotes policy decisions, schemes for environmental services payment, and alternative/renewable energy and energy-saving initiatives among local forestry groups[27]. Furthermore, the National Agroforestry Policy, 2019, and the National Biodiversity Strategy and Action Plan (2014-2020) aim to integrate forestry into the farming system, protect ecosystems, and enhance biodiversity conservation in the agricultural landscape, thereby mitigating the impacts of climate change. In 2013, Nepal introduced the 'Crop and Livestock Insurance Directive 2013' to strengthen agriculture

23 Paudel, B., Khanal, R. C., KC, A., Bhatta, K., & Chaudhary, P. (2017). Climate-smart agriculture in Nepal. CSA Country Profiles for Asia Series, 26.
24 Sun, H., Tang, Y., & Xie, J. (2008). Contour hedgerow intercropping in the mountains of China: A review. Agroforestry Systems, 73(1), 65–76. https://doi.org/10.1007/s10457-008-9113-x
25 National Adaptation Plan 2021. National Adaptation Plan (2021-2050). Summary for policymakers. https://www.preventionweb.net/publication/national-adaption-plan-nap-2021-2050-nepal
26 GoN (2020). Second Nationally Determined Contribution (NDC) of Nepal. Government of Nepal, Kathmandu. December, 2020
27 Thapa, D., Subedi, Y.R., & Ojha, H. (2018, March 14). Climate Adaptive Agricultural Innovation in Nepal: Prospects and Challenges. Retrieved from https://www.intechopen.com/chapters/58401

insurance to transfer and minimize the risks. The government's subsidy programme for insurance, authorization of over 20 insurance companies nationwide and collaboration with microfinance institutions have improved accessibility to insurance among the smallholder farmers. Currently, it covers 26 animal categories and major crops, including medicinal plants.

Gaps

A consistence action gap in agriculture has been the lack implementation of the stated policy measures. Majority of the prioritized plans and projects remain as non-starter mainly due to lack of climate finance. Agricultural professionals and organizations struggle to grasp the complex processes involved in spreading and expanding CSA practices, lack of knowledge among communities and stakeholders, and low adaptive capacity of communities is also one of the major gaps so there is a need to improve individual and institutional capacity and coordination, and policies should prioritize climate-friendly interventions. Currently, project-based approaches are common, but they often overlook long-term sustainability[28]. Likewise, Stubble burning is also a practice done to prepare the land for the next round of seeding. This is also notable that agricultural sector continues to be the major contributor to Nepal's economy, employing over 60% of the economically active population and contributing to more than 27% of the country's GDP. In 2019, the agriculture sector alone released a total of 1.39 million metric tons of methane, 26.3 million metric tons of nitrous oxide, 0.17 million metric tons of carbon dioxide, and 27.86 million metric tons of carbon dioxide equivalent emissions[29]. In the agriculture sector, the livestock sector is a major contributor to GHG emission followed by the lowland rice farming.

28 Paudel, B., Khanal, R. C., KC, A., Bhatta, K., & Chaudhary, P. (2017). Climate-smart agriculture in Nepal. CSA Country Profiles for Asia Series, 26.
29 GoN. (2021). Nepal's Long-term Strategy for Net-zero Emissions Government of Nepal October 2021. October. Government of Nepal. https://unfccc.int/sites/default/files/resource/NepalLTLEDS.pdf

Water resources

Overview

There is a popular narrative about Nepal's water sector implying that Nepal is among the rich nations on water resources. The narrative is based on the the total volume of water in the rivers that drain 80% of monsoon rainfall in 4 months and remain dry in the rest 8 months of a year. In ground reality, Nepal is a highly water stressed country due to disparity of demand and supply as explained in the National Adaptation Plan 2021, Water Resource Policy 2022 and L &D Framework 2021. For example, majority of population in the mountain region rely on spring sources for daily water supply and irrigation during rainy monsoon season. Climate change has severely affected these sources as many of them have either dried up, declined or flow only during rainy months. In number, 16% of springs are reported dried up and 60% of them reported reduced flow mainly due to declining rainfall, haphazard infrastructure development, and excessive spring resource exploitation[30].

In 2021, Nepal experienced two extreme water induced disasters, the first was the devastating floods in Melamchi that devastated the entire downstream settlements across the river sides, and the second was the post monsoon rainfall of mid October that destroyed ready to harvest paddy worth NPR 12 billion. More importantly, the Melamchi flood destroyed the just completed national pride project of water supply to the capital city, Kathmandu that was built over two decades with ADB Loan. While the exact data of Melamchi flood loss remain unknown, the destruction of wide stretches of the fertile agricultural lands, market places, mining industries and other source of livelihoods led to displacement of thousands of families. Likewise, the post monsoon flood across Nepal resulted in the loss of rice in 110,000 hectares causing huge economic loss. The impacts of climate change on water, sanitation, and hygiene (WASH) infrastructure, including water supply pipes, intakes, reservoirs, and sanitation facilities mark the stresses on water resource sector in Nepal.

Gap

Major action gaps in water resource sector is again the unmet policy target of those identified by the climate change policies including the NAPA 2011, National Climate Change Policy 2019 and NAP 2021. Also, there are policy confusions regarding water resource sector due to overriding and crosscutting nature of water among hydropower, disaster risk ang WASH. Competition and conflicts over ownership rights of water sources at local level indicate a grave scenario requiring urgent attention to manage the sector not only from climate change but other issues of social vulnerability. Current development policies are inadequate to address such concerns linked to climate change and water insecurity.

Although a number of policies, namely, the 15th Five Year Plan (2019-2023), the National Irrigation Master Plan 2019, the National Water Resources Policy 2020, the Drinking Water and Sanitation Act, 2022, the Sustainable Development Goals Road Map 2015-2030, and the White Paper (2018) of the Ministry of Energy, Water Resources and Irrigation provide an enabling policy environment to manage and develop water sector, the same remain ineffective largely due to a situation like 'too many cooks spoil the food.

30 NWCF (2021). Reviving spring of the Himalayas: An imperative for policy support. December. Nepal Water Conservation Foundation.

Civil society engagement in climate action

Overview

Civil society plays an important role in bringing emerging environmental issues to the attention of policy makers, raising public awareness, promoting innovative ideas and approaches, and promoting transparency as well as non-corrupt activities in environmental decision-making. Therefore, civil Society is recognized as major stakeholder in climate change discourses around the world. In Nepal, CSO's particularly non-governmental organizations play a vital role in climate discourses leading to shape the various climate policies and strategies since 2004 when Nepal submitted its first national communication report to the UNFCCC. Subsequently, CSOs continue to engage with the vulnerable communities in building capacity of both local government and local communities and at the same time investing in implementing climate adaptation activities aligning with the national policies and framework. CSOs in Nepal have been very successful in using their expertise and knowledge to advocate for social and political changes that have led to Nepal becoming a much fairer and more equal society. This way, Civil Society in Nepal are mostly engaged in the implementation of climate change adaptation and mitigation policies and plans.

CSOs depending on their expertise are engaged in the global climate negotiation processes to support national agendas in the global and regional climate forum. They have also contributed to build solidarity to connect local actors to those of global and regional. CSO movement in climate change was more pronouncedly initiated from 2004 with formation of Climate Change Network Nepal (CCNN). The members of the CCNN included members from NGOs/INGOs including Donor and UN Agencies, thus making this as the oldest and pioneer networks on Climate change in Nepal.

From 2008- 2015, the NGO Network on Climate Change (NGONCC) network had 125 members from across the country and played a crucial role in generating evidence on climate change. It acted as a bridge for national and international networks to provide grassroots information. The network transferred international progress on negotiations and relevance to its members through the same channel. It made significant contributions by providing feedback, comments, and suggestions in various areas, including capacity building of GOs/NGOs, facilitating the integration of CCA into the development planning process, and creating a feedback loop for discussions on climate change policy and national adaptation framework (NAPA, LAPA) preparations.

The NGONCC network strategy identified priority agendas for advocacy, capacity building, and dialogues at different levels; provided policy feedback and support to the Government of Nepal in preparing the National Climate Change Act through a consultative process; strengthened mainstreaming climate change adaptation in local development plans to build and sustain community resilience; and, advocated on assessing the climate finance received or to be received by the country.

The network played instrumental role to guide then the Government of Nepal to endorse Kyoto Protocol in 2005 to pave the road for accessing CDM based climate finance.

Roles of Civil Society Organizations (CSOs) have been recognized climate policies specifically for implementing climate-resilient communities and sustainable development. Their roles have been remarkable in climate advocacy, enhancing coordination and collaboration for climate action, research

and data management and community mobilization. CSOs are playing crucial roles in strengthening local capabilities, acting as intermediaries between national and local governments, and advocating for the development and execution of appropriate policies. CSOs have received recognition as essential stakeholders in promoting climate-resilient governance. Nepali CSOs have actively participated in different international climate negotiations including the UN Climate Conference of Parties (COP) to advocate agendas of mountain and developing societies as a common voice of the vulnerable communities.

CSOs have also engaged and mobilized young people through different activities. Youths have been engaged in different consultations and discussions by different CSOs to input on different thematic areas and issues related to climate change. Despite constituting nearly 33% of the entire population in the country, youth voices and participation are still lagging behind at the policy decision-making tables, therefore they are the ones that must deal with the overall effects of any climate change actions or inactions[31]. The CSOs need to bring the young people at the tables of policy formulation, implementation, monitoring, and consultations and discussions they have already been doing. Nepalese Youth Climate Action (NYCA) - a youth led network is an active network engaging youths from diverse backgrounds to engage youth in the sectors of climate action from ground-level awareness and advocacy to policy dialogue and consultations with different stakeholders and the government.

> During the 26th COP at Glasgow, the methane pledge was launched, a voluntary commitment to reduce global methane emissions by 30% below 2020 levels by 2030. More than 130 nations have ratified the commitment including Nepal as a signatory party after the COP 27 in Sharm El-Sheikh, Egypt. Over 50% of Nepal's 44.06 million metric tons of carbon dioxide equivalent emissions come from its agricultural sector, hence methane reduction in the sector will be a top emphasis in its involvement with the Climate and Clean Air Coalition (CCAC), Nepal being a member country to the Global Methane Pledge. Agriculture is a prime source of income for the marginalized people plus the primary source of economic development in the country is very crucial for further financial and social development in the country, but the global commitment to reduce the methane emission seems to limit the productivity and economic development of the country pushing the vulnerable people to the extremities.

Gaps

CSO's play considerable role in engaging with the government institutions, collaborate on the projects and partner with the governments but remain silent on the issues where public voice and interest is required. These actions shrink the CSO's space on the advocacy, issues and lobbying on the critical topics of public interest related to climate change.

Different studies have shown that CSOs' influence on practice and policy is minimal, which ultimately affects the vulnerable and poor they see. They function independently raising concerns about their responsibility and legality in different time intervals[32]. CSOs participation in and contribution to climate change policy processes is crucial, CSOs being an important stakeholder. For example, including the NDC review process but there are several variables that might undermine CSO contribution effectiveness and efficiency. The policy documents lags on defining the roles and responsibility of the CSOs for meaningfully engaging them on policy building and implementation. In addition, there are different CSOs that have been engaged in formulation and consultations for the NDC formulation but the CSOs seem to be lagging in context of implementing the mentioned strategies and plans into action as mentioned.

31 Pokharel, S. (2020). Youth participation in policy decision-making: An analysis of challenges and opportunities. Journal of Youth Studies, 18(3), 70-85.
32 Court, J, Mendizabal, E, Osborne, D and Young, J. (2006). Policy Engagement; How Civil Society can be More Effective. http://cdn-odi-production.s3-website-eu-west-1.amazonaws.com/media/documents/200.pdf

Conclusion and ways forward

Nepal's target to net zero emission by 2045 is a welcome step. This a visionary target that requires matching by hard actions on the ground. The trajectory of past performances is not encouraging in meeting the policy targets, therefore, need a realistic roadmap and strategy to engage all stakeholders to contribute to this common goal. For example, Nepal needs to have trajectory of phasing down the fossil fuel consumption as well as broader framework of energy mix in the energy sector.

Civil society need to continue the advocacy and influencing on the key critical issues. Firstly, influencing the government is crucial to driving policy changes and creating an enabling environment for climate action. CSO's need to play a pivotal role in engaging with policymakers, advocating for sustainable practices, and fostering collaborations between various stakeholders. The Mountain Agenda is of paramount importance in Nepal due to its vulnerable mountainous terrain. As CSO's, focusing on this agenda would involve prioritizing climate resilience, disaster preparedness, and sustainable development initiatives that cater specifically to the unique challenges faced by mountain communities. Moreover, securing Adaptation Finance is essential to implement climate adaptation projects in Nepal. CSO's can actively lead efforts in seeking international funding, forming partnerships with donors and development agencies, and ensuring the efficient allocation of financial resources to support climate resilience and adaptation programs across the country. Localized Climate Action is crucial for tackling the varied impacts of climate change at the grassroots level. CSO's need to empower local communities through capacity-building, knowledge sharing, and encouraging sustainable practices that align with the region's cultural and environmental context. CSO presence in remote communities otherwise not reached by the governments and organizations gives these a better understanding of local conditions on the ground. CSOs serve as intermediaries in redress of grievances and bridges for consultations. CSOs amplify the collective call to action and accountability, and monitor implementation of projects and agreements.

In the Nepalese context, civil society organizations (CSOs) still need to play a significant role in climate action. There is need of tracking climate finance at all government levels, ensuring transparency and effective use of funds. CSOs should promote local government ownership of climate adaptation, empowering communities to lead initiatives. They need to strengthen local governments through capacity-building and advocacy. Additionally, CSOs should advocate for a balanced loan vs. grant mechanism for climate finance, optimizing resource allocation and promoting climate resilience.

marginalized communities and individuals who are both socially and economically vulnerable are further impacted of the climate change. Socioeconomic and geographical challenges such as residing in poorly constructed homes in high-risk regions, heavy reliance on natural resources for sustenance and income, and limited alternative options further add the vulnerability. Additionally, existing structural inequalities further limit their ability to effectively respond to climate-related hazards. In context of Nepal, around 647 people die on an average annually due to various climate-induced disasters and is gradually increasing. These impacts have been anticipated to worsen in the upcoming years, destabilizing and displacing vulnerable and marginalized communities and people in many different ways. In this scenario, there is high need of addressing these issues centering gender, disability and social inclusion. The participatory approached in highlighting these issues, bring groups/people to the center of the discussion and identifying needs would be the major tasks CSO's should lead in coming days.

Effective implementation of all climate change adaptation and mitigation related legislations, action plans, policies and programs has felt essential in order to achieve the goals and objectives. Addressing the increasing impact of climate change, Nepal requires a larger stakeholder engagement with clear financing commitments and plans. The role of all 3 tiers of government is vital to institutionalize climate change adaptation and mitigation in Nepal. Institutional strengthening in particular for local governments should be the immediate priority for the government.

Provisions of 80% of the international climate finance to directly reach to the local level should be effectively monitored and the institutional mechanism should be developed. The enhanced tracking of the climate budget and the climate change financing framework should also be developed for the local government where most of the implementation takes place.

There is dire need to increase climate finance at local and provincial level for the effective implementation of existing climate policies, strategies, and action plans. As per the climate policy in Nepal 2029, 80% of the climate budget should go to the local level, however due to the lack of tracking system, accountability mechanism and knowledge on climate action, the policy provision is yet to be fully materialized. Loss and Damage Finance linked with risk transfer mechanism: We emphasis that the address climate induced loss and damage, the financial mechanism that is under set up at international level should be mobilized to the risk exposed populations in the form of insurance mechanisms. The mechanism can be set up in the form of parametric insurance system, or disaster risk finance mechanism.

Climate adaptation technologies should be localized, built on local knowledge systems and local needs. These includes community centric end to end early warning system, community centric flood resilience mechanism e.g. Flood Resilience measurement for communities (FRMC), and Climate Resilience Measurement (CRMC), climate field school, and citizen science approach in disaster risk reduction. In addition to the policy and financial framework, social mobilization, awareness raising capacity building of the government, political representatives and community is required for the effective mainstreaming and integration of climate change in the development process. Resilient livelihood programs will help enable the vulnerable communities to diversify income sources.

Nepal significantly lacks the scientific research and data on the climate change processes. There is a need for increasing investment in these efforts, enabling current established institutions and strengthening academia for scientific research. All climate actions should priorities GEDSI and wider civil society participation. As the impacts of the climate change have differential impact to vulnerable groups, there is need of wider engagement and consultation to include these issues during the planning and implementation.

In response to the needs of climate action, numerous initiatives in the form of policy, plans, projects and strategies have been implemented over the years. However, their effectiveness, efficiency and appropriateness haven't been either monitored and evaluated or made publicly available. Specifically, addressing the gaps in three areas of climate actions are essentials to enhance accountability. They include widening gaps in adaptation needs and actions, mitigation targets and progress, and tracking of loss and damages. Some pertinent questions in this regard include: Did the specific adaptation actions undertaken in the past fulfill the targets? What were the lessons learned? Who is accountable for the unfulfilled commitments? Why were there no public audits of the actions or the reports not made public? Similar questions applied to the mitigative actions as well. Lack of a systematic mechanism to track the cases of loss and damages and associated risks is the major issue of concern.

Lack of institutional memory of climate data and information in the public institutions has been a critical issue to maintain accountability and integrity of the climate action. Government and CSOs should address the issue with a systematic approach and priority as a key action to strengthen national capacity. There is a growing need of setting up a permanent mechanism for an informed decision-making process in the public institutions, specifically for adopting and mobilizing climate knowledge and information. Finally, on climate finance, Nepal only should bolster its preparatory action to access international funds but also to chart out a roadmap for post LDC graduation scenario when Nepal is likely to loose the facility provisioned for LDC.

Appendices

Appendix I: List of Climate Policies of Nepal

Policies and Plan	What it offers?
National Adaptation Programme of Action (NAPA) (2010)	This framework aims to support the integration of local adaptation plans into national planning and provides guidance and a systematic approach to developing and implementing adaptation plans at the local level, considering the specific climate change risks and vulnerabilities faced by different regions and communities in Nepal.
Climate Change Financing Framework (2017)	Provides a roadmap for integrating climate change considerations into planning and budgeting processes, enhancing climate finance readiness.
National Policy for Disaster Risk Reduction (2018)	Focuses on disaster preparedness, early warning systems, and building resilience to climate-related hazards.
National Framework on Local Adaptation Plans of Action	A framework that supports the integration of local adaptation plans into national planning, providing guidance for developing and implementing plans.
Climate Change Policy (2019)	Outlines Nepal's approach to climate change adaptation and mitigation, emphasizing reducing greenhouse gas emissions and promoting sustainability.
National Climate Change Policy (2019)	Focuses on enhancing adaptation capacity, promoting a green economy, and mainstreaming gender equality and social inclusion.
Climate Change Scenarios for National Adaptation Plan (NAP)	Outlines strategic actions and measures to address climate change impacts and build resilience across sectors and regions.
Nepal's Third National Communication to UNFCCC (2021)	Highlights policies, measures, and actions taken to reduce greenhouse gas emissions, adapt to climate change, and enhance climate resilience.
Vulnerability and Risk Assessment and Identifying Adaptation Options (2021)	Identifies adaptation options and strategies to address climate change risks and vulnerabilities in different sectors and regions.
National Framework on Climate Change-Induced Loss and Damage (L&D) (2021)	Aims to assess and manage risks associated with climate-induced loss and damage, including financial, social, and environmental impacts.
Second Nationally Determined Contribution (2020)	Updated commitment under the Paris Agreement, outlining Nepal's targets, policies, and actions for mitigating climate change.
Long-Term Strategy on NetZero GHG emissions (2021)	Outlines Nepal's vision and pathway to achieve net-zero greenhouse gas emissions, setting goals for reducing emissions and promoting sustainable development.
National Adaptation Plan (2021-2050)	Outlines strategic actions and priorities to build resilience and enhance adaptive capacity across sectors, considering projected climate change impacts.
Nepal Long-Term Strategic for Net Zero Emission (2021)	Outlines pathways and measures to achieve net-zero greenhouse gas emissions, promoting renewable energy and climate resilience.
National Framework on Climate Change-Induced Loss and Damage (2021)	Aims to assess, manage, and mitigate the adverse impacts of climate change on vulnerable communities, ecosystems, and infrastructure

Appendix II: Fossil fuel imported by NOC

Fiscal Year	Petrol (KL)	Diesel (KL)	Kerosene (KL)	Aviation Turbine Fuel (KL)	LPG IN MT
2069/70 (2012/13AD)	223,087	721,203	24,065	115,896	207,038
2070/71 (2013-14AD)	253,381	808,567	18,409	125,678	232,660
2071/72 (2014-15AD)	287,473	921,714	19,653	141,404	258,299
2072/73(2015-16AD)	240,386	785,685	14,194	83,819	214,194
2073/74(2016-17AD)	407,270	1,319,873	19,607	164,836	312,928
2074/75 (2017-18AD)	488,675	1,588,869	22,337	197,220	370,560
2075/76 (2018-19AD)	566,827	1,714,917	25,004	200,108	429,609
2076/77 (2019-20AD)	512,128	1,473,536	18,924	137,424	449,063
2077/78 (2020-21AD)	591,700	1,696,202	23,584	72,264	477,752
2078/79 (2021-22AD)	736,276	1,723,557	17,340	157,128	536,028

Appendix III: Fossil fuel sales by NOC

Fiscal Year	Petrol (KL)	Diesel (KL)	Kerosene (KL)	Aviation Turbine Fuel (KL)	LPG IN MT
2069/70 (2012/13AD)	221,676	716,747	24,721	115,786	207,038
2070/71 (2013-14AD)	251,451	811,100	19,064	123,527	232,660
2071/72 (2014-15AD)	283,567	901,393	18,628	139,404	258,299
2072/73(2015-16AD)	238,578	782,451	14,858	80,119	214,194
2073/74(2016-17AD)	402,278	1,297,066	19,459	164,299	312,928
2074/75 (2017-18AD)	484,781	1,597,551	22,311	194,358	370,560
2075/76 (2018-19AD)	562,866	1,702,157	25,086	200,137	429,609
2076/77 (2019-20AD)	507,786	1,453,592	19,212	138,680	449,063
2077/78 (2020-21AD)	587,677	1,698,427	23,427	70,400	477,752
2078/79 (2021-22AD)	730,488	1,727,571	17,817	154,078	536,028

Appendix IV: Energy Generation as per category

Category	Fuel Type	Energy (000 GJ)	000 TOE	GWh	% of National Total
Traditional	Fuelwood	366,847.42	8,762.00	101,902.06	64.87%
	Agricultural Residue	18,254.45	436.00	5,070.68	3.23%
	Animal Waste	17,877.64	427.00	4,966.01	3.16%
		402,979.50	9,625.00	111,938.75	71.26%
Commercial	Kerosene	681.51	16.28	189.31	0.12%
	Petrol	14,473.37	345.69	4,020.38	2.56%
	Diesel	41,104.14	981.76	11,417.82	7.27%
	ATF	4,369.79	104.37	1,213.83	0.77%
	LPG	20,493.49	489.48	5,692.64	3.62%
	Furnace Oil	373.99	8.93	103.89	0.07%
	Coal	43,203.07	1,031.89	12,000.85	7.64%
	Electricity	23,200.05	554.12	6,444.46	4.10%
		147,899.40	3,532.52	41,083.17	26.15%
Renewable	Biogas	10,140.70	242.21	2,816.86	1.79%
	Solar	4,080.09	97.45	1,133.36	0.72%
	Wind	1.42	0.03	0.39	0.00%
	Micro/Pico Hydro	435.89	10.41	121.08	0.08%
		14,658.11	350.10	4,071.70	2.59%
Total		**565,537.01**	**13,507.62**	**157,093.61**	**100.00%**

Appendix V: Agri-residue supply potential in 2020/21 (WECS, 2022)

	Production in tons				total residue in tons	Total potential energy 000 GJ
	paddy	Maize	Wheat	Millet		
Mountain	880,092	735,613	271,080	99,212	4,532,042	75,930
Hills	1,577,939	1,521,780	585,446	160,260	8,862,271	147,909
Terai	3,459,061	753,330	1,457,916	66,296	12,299,437	218,716
Total	5,917,091	3,010,723	2,314,441	325,768	25,693,750	442,554
Province 1	1,327,718	921,281	187,153	96,629	5,716,718	96,689
Madhesh	1,514,149	186,482	637,269	1,666	4,940,864	89,169
Bagmati	543,860	655,896	178,385	70,720	3,386,045	55,795
Gandaki	435,703	460,325	105,274	107,730	2,555,326	41,850
Lumbini	1,263,705	423,059	538,509	11,961	4,879,607	85,848
Karnali	143,274	239,142	207,897	20,710	1,441,589	23,860
Sudurpashchim	688,682	124,538	459,954	16,353	2,773,601	49,344
Provincial Total	5,917,091	3,010,723	2,314,441	325,768	25,693,750	442,554

Appendix VI: Animal waste production in 2020/21 (WECS, 2022)

	Livestock population		Total annual dry dung potential in tons	Actual dry dung production in tons	000 GJ
	Cattle	Buffalo			
Mountain	869,381	479,879	423,583	296,508	4,424
Hills	3,147,085	3,380,732	4,457,848	3,120,494	46,558
Terai	3,481,957	3,077,812	4,999,359	3,499,551	52,213
	7,498,423	6,938,423	9,880,790	6,916,553	103,195
Province 1	1,992,260	1,124,990	1,981,956	1,387,369	20,700
Madhesh	1,253,735	1,101,389	1,794,017	1,255,812	18,737
Bagmati	1,069,991	1,194,479	1,491,846	1,044,292	15,581
Gandaki	484,419	899,031	1,031,602	722,121	10,774
Lumbini	1,168,423	1,583,134	2,063,833	1,444,683	21,555
Karnali	506,857	401,921	527,950	369,565	5,514
Sudurpashchim	1,022,739	633,478	989,587	692,711	10,335
	7,498,423	6,938,423	9,880,790	6,916,553	103,195

Appendix VII: Energy generation

Power (Electricity)	Unit (kW)
NEA Grid Connected	578,624
Small hydro (NEA) Isolated	4,536
Total Hydro (NEA)	583,160
Total NEA Subsidiary Hydro	478,100
Hydro (IPP)	1,020,528
Total Hydro (Nepal)	2,081,788
Thermal (NEA)	53,410
Solar (NEA)	21,580
Solar (IPP)	33,140
All Installed Capacity	2,189,918
Small hydro (NEA) Isolated	-4,536
Total Installed Capacity (NEA+IPP to Grid)	2,185,382
Thermal (NEA)	-53,410
Total Installed Clean Energy Capacity (NEA+IPP to Grid)	2,131,972

(Source: NEA, 2022)

Appendix VIII: Sectoral emissions based on scenarios

Scenarios	Million metric tons co_2 emissions								
WAM									
		2019	2020	2025	2030	2035	2040	2045	2050
	Energy	12.5	12.4	12.0	11.0	10.2	9.1	6.5	1.7
	Agriculture	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	LULUCF	8.4	-27.2	-22.6	-19.9	-12.1	-11.2	-10.0	-9.2
	IPPU	1.9	1.8	2.3	2.9	3.7	3.5	2.8	1.6
	Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Net Emission	23.0	-12.9	-8.2	-5.8	2.1	1.6	-0.4	-5.7
WEM									
		2019	2020	2025	2030	2035	2040	2045	2050
	Energy	12.4	12.5	12.9	12.9	14.3	16.5	19.2	22.3
	Agriculture	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	LULUCF	8.3	-22.3	-13.6	-12.1	-3.6	-2.7	-1.5	-0.7
	IPPU	1.9	1.8	2.3	2.9	3.7	4.8	6.1	7.7
	Waste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Net Emission	23	-7.8	1.7	3.9	14.6	18.8	24.0	29.5
REF									
		2019	2020	2025	2030	2035	2040	2045	2050
	Energy	12.5	12.5	15.2	19.6	25.1	32.2	41.4	53.8
	Agriculture	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	LULUCF	8.4	8.7	9.3	11.1	12.7	14.1	15.5	16.9
	IPPU	1.9	1.8	2.3	2.9	3.7	4.8	6.1	7.7
	Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Net Emission	23	23	27	34	42	51	63	79

About CANSA

Climate Action Network South Asia (CANSA) is a dynamic coalition comprising over 300 civil society organizations operating in eight South Asian countries. Its primary mission is to promote government and individual actions aimed at mitigating the human-induced climate crisis. CANSA is deeply committed to advancing climate justice among different communities, ensuring sustainable development, and safeguarding the global environment. CANSA plays a significant role in advocating for the interests of the Southern perspectives during international climate negotiations.

Climate Action Network South Asia (CANSA) Nepal was established in 2010 by the climate professionals affiliated with various civil society institutions in Nepal. The CANSA-Nepal chapter currently comprises 20 esteemed member organizations. CANSA-Nepal actively represents the collective voice of civil society in climate change initiatives within Nepal, acting as both a supplementary advisory body and a pressure group. CANSA-Nepal endeavors to drive positive changes and shape policies that contribute to Nepal's resilience against climate challenges.